Measurement
Lesson 10: Volume
Math for Standards

Name _____

Date _____

Key Concepts:

The volume of a solid is a measure of the _____

a three-dimensional figure.

Volume formulas:

Rectangular prism:

Cube:

Triangular prism:

Cylinder:

Pyramid:

Cone:

Sphere:

Example 1: Find the volume of a cylinder to the nearest tenth if the diameter of the base is 12 in and the height of the cylinder is 15 in.

Example 2: The volume of a square pyramid is 81 $mm^3$. If the length of a base edge is 3 mm, what is the height of the pyramid?

Example 3: A cube has a base edge of 5 ft. A square pyramid has the same base and is as tall as the cube. How do the volumes of the shapes compare?

Example 4: Matt Mitarnowski and Fuzzy Jeff were trying to make snowmen during the first snowfall of the year. They each rolled snow into a ball until they couldn't push it anymore. Matt's ball had a diameter of 4 feet. Jeff's ball had a radius of 1.75 feet. Who used more snow, and by how much?

Example 5: A box of cereal has a height of 14 in, is 6 in wide, and 2 inches deep. What is the maximum amount of cereal that could be placed in the box?